

**ENERGY STAR® Refrigerated Beverage  
Vending Machine Industry Meeting  
Georgia World Congress Center, Atlanta, GA  
October 22, 2002**

A total of 25 people representing vending machine manufacturing companies, component OEMs, trade organizations, beverage companies, and other industry players attended the ENERGY STAR Refrigerated Beverage Vending Machine Industry Meeting. The meeting was held in conjunction with InterBev 2002. Please refer to the Final Attendee List for the names of those who participated in the meeting.

Provided below is a summary of the discussions that took place during the meeting. Each section ends with comments and/or questions that were posed by the group; ENERGY STAR representatives are working to address these items. Presentations for the meeting can be downloaded from the ENERGY STAR Web site by visiting [www.energystar.gov/products](http://www.energystar.gov/products) and clicking on the “Products in Development” icon on the bottom of the page.

**Presentation: ENERGY STAR Overview**

Rachel Schmeltz, EPA

Ms. Schmeltz began the meeting with an overview of the ENERGY STAR program. She then explained the criteria that EPA uses in determining whether or not to include a new product in the ENERGY STAR suite of products and the preliminary research that takes place leading up to a draft specification. Ms. Schmeltz shared the impact that ENERGY STAR has had on the marketplace, including a more than 40% consumer brand awareness to-date. She then walked through the requirements of the ENERGY STAR Partnership Agreement and partner commitments that must be met to participate in the program. Ms. Schmeltz then explained EPA’s history with vending machines, which started more than 5 years ago, and presented the steps that need to be taken to develop, finalize, and announce a successful Refrigerated Beverage Vending Machine ENERGY STAR specification. One of the main challenges is getting reliable energy performance data to ensure a solid specification.

**Comments/questions from the group:**

- How does EPA verify that products meet the specification in the field?  
Response: Some of the specifications require third-party testing or a challenge process. EPA also tests products in the field to ensure compliance. In general, ENERGY STAR is a self-certifying, self-policing program that relies on competition among industry players to report inappropriate use of the logo.
- Why place a label on vending machines when it is not a consumer product?  
Response: With the possibility of utility incentive programs, it is important that the label be visible on-site so that utilities can identify qualified machines within their territory. It is also important to continue to build brand awareness with the consumer as well as to give manufacturers, beverage companies, and bottlers credit for environmental stewardship.

## **Presentation: Opportunities to Collaborate with Electric Utilities on Energy Efficient Vending Machines**

Rachel Shwom, Consortium for Energy Efficiency (CEE)

Ms. Shwom presented the group with an overview of utility interest in energy efficiency and the goals they are trying to achieve through incentive and rebate programs. Utilities are very interested in investing in vending machine programs that could include a mixture of new and existing machine, control, and recycling components; however, there is some concern regarding: (1) uncertainty of savings occurring within the utility's service territory once the rebate is given (due to the fact that these machines are moved around quite a bit), (2) who to give the rebate to, and (3) verification of qualification in the field (e.g. in the case of retrofitted machines). Most of the programs give the incentive to the person who pays the incremental cost for the increase of efficiency, which is most commonly the purchaser; however, incentives have been given to distributors or manufacturers in special cases. The idea is to place the incentive where it will have the greatest impact on the marketplace.

Overall, utilities are very excited about the possibility of an ENERGY STAR specification for vending machines and are open to working with industry to design a successful vending machine rebate/incentive program.

### **Comments/questions from the group:**

- Is one of the responsibilities of CEE to track all the utility activities and programs?  
Response: Yes, CEE acts as the go between for utilities and manufacturers. A number of utilities are currently looking at incentive programs for commercial packaged refrigeration products, such as vending machines.
- The vending industry must have the flexibility to move machines around; therefore, problems may arise, especially if the incentives across the country are not consistent. For example, if a machine is rebated in one utility area, then that machine is moved in 2 years to another utility area, the lifetime energy savings of that machine is not realized in the territory in which the rebate was given.  
Response: Both EPA and CEE strive to set a specification that can be used across the nation; however, utility dollars are not fixed, and thus there will be differences in the amount rebated. It is important that the utilities see the actual savings within their territory if they are to give the rebate. This is an issue that requires more exploration.
- How do utilities get their funding for these programs?  
Response: Consumers are taxed on kWh usage (small amount) and the money is pooled together for use in incentive programs.
- Are there conversations between utility groups across the nation?  
Response: Yes, and CEE facilitates this. There are also regional groups such as the Northeast Energy Efficiency Partnerships (NEEP) that cover more than one utility territory in a region and attempt to coordinate programs across state lines.
- What percentage of utilities participating in CEE?

Response: Approximately 50-60 utilities are participating. Certain utilities have more funds than others and have different priorities geographically, so it is difficult to have one standard program across the nation. CEE attempts to create a level playing field. Just over 1 billion dollars will be going through these utility programs into 2003 covering residential, commercial, and industrial efforts.

- Suggestion that the solution for utilities should not be region-based unless there is collaboration between regions.

### **Discussion: Draft Refrigerated Vending Machine Specification**

Rachel Schmeltz, EPA

Ms. Schmeltz lead the group through each section of the Preliminary Draft Eligibility Criteria which included definitions, specification levels, testing and reporting requirements, and specification effective and launch dates. Comments and questions for each section of the specification are provided below:

#### **Definitions:**

##### **I. Refrigerated Beverage Vending Machine**

- The group agreed the first sentence of this definition is enough to describe this product; the second sentence should be deleted.

##### **II. Machine or Product Capacity**

- Machine capacity should be changed to “vendable capacity” which, for purposes of this specification, should be based on 12-ounce cans similar to the ASHRAE standard.
- There are instances of machines that cannot use 12-ounce cans, however, we will then get a whole myriad of performers if bottles are included.
- The group agreed that 12-ounce is the industry standard and should be used in the definition of vendable capacity.

##### **III. Low Power Mode**

- Overall the definitions should be more simple and precise. The first half of the first sentence of this definition is all that is needed to define low power mode for this product. The revised definition should read “The reduced power state of a vending machine during extended periods of inactivity.”

#### **Specification Levels**

EPA still needs additional data on machine performance and requested this information from the group. With limited data available, the ENERGY STAR specification is based on the CSA equation.

##### **I. General**

- To get to these levels, manufacturers must do more than install efficient lighting.

- This is a very rigorous specification, but it can be done.
- In California, vending machine energy consumption data will be required to be reported to the California Energy Commission (CEC) by a yet to be determined date based on final regulation approval from the Secretary of State; hopefully in the next month or so.
- Suggestion that in setting a specification, EPA should make sure to capture those new models (and energy-efficient designs) that will be coming in the near future.
- How would information on a new vending machine specification get promoted to the end user?  
Response: ENERGY STAR has an extensive network of contacts in commercial buildings, hospitality, and educational sectors to get qualified information into the right hands.

## II. Low Power Mode Requirement

- Suggestion that the specification be performance-based, not prescriptive. For example, EPA should not include a low power mode requirement; it should be left up to the manufacturers as to how to reach the daily energy usage requirement. This will allow the flexibility of using a number of different approaches to reach the requirement.
- Suggestion that as long as the controls are in place allowing the machines to be powered down, machines should be able to qualify. EPA should not include the 20% lighting and 50° requirements. Shut down and restart capability should be the only prescriptive requirement of the specification, giving give the manufacture flexibility on how they want to implement it. The site would then be allowed to program the machine according to on-site activities to go beyond the performance specification.
- EPA may be actually limiting future technologies by specifying low power mode parameters; however, if we do not define it, how will it be implemented by manufacturers? Does low power mode mean using only 0.1 kWh less? Suggestion that if EPA is to include a low power mode requirement, a performance level should be assigned.
- The technology exists to power the machine down in times of inactivity. To include this in the specification allows the possibility for further reductions on-site in addition to known (and tested) performance levels due to component changes.
- Suggestion that the overall specification be a combination of prescriptive and performance to capture all possible savings.
- Not all machines have the capability to go into low power mode. And for the machines that do have the capability, the settings are not being programmed on-site.
- The following options for low power mode will be explored further by EPA:
  1. No low power mode included at all
  2. Low power mode with set consumption level as a % reduction in power consumption

3. Some threshold value (e.g. maximum wattage) for energy consumption in low power mode
4. Low power mode with prescribed parameters or options for parameters
5. Require that machines come equipped with the capability of entering a low power mode without any further specificity.

### **III. Temperature Sensitive Machines**

- Set-backs, or low power mode, may affect milk/sensitive machines.
- Suggestion that temperature sensitive and glass front machines be explicitly excluded.
- Some existing milk machines could meet the Draft specification levels. Suggestion that EPA leave the specification open to any refrigerated vending machine type (i.e. milk machines) that can meet the specification level.

### **IV. Machine Performance Data**

- NAMA offered to provide EPA with performance data; EPA needs to come up with a definitive list of what numbers are needed (i.e. what % of the market, % of total business, etc.). There is some hesitation to hand over information that could be made public; EPA should ensure that this information is outside of the FOIA request process.

### **Testing Requirements**

- In some cases, machines actually perform better in the field but EPA should use the ASHRAE standard to determine machine performance.
- A question was asked about the validity of the CSA equation, and whether the relationship between can capacity of a machine and its daily energy consumption is truly linear?

Response: All OEMs participated in setting the CSA equation so there must be some validity. The equation holds up pretty well for standard capacity machines. Considering the little data available to come up with this preliminary draft, EPA decided to use the existing and assumed “accepted” CSA equation.

- Are there any test facility requirements that should be included in the specification?

Response: Room parameters are provided in the ASHRAE standard; there is no third party testing requirement, however, CEC is requiring an approval process for labs.

### **Labeling Requirements**

Currently, the specification requires the ENERGY STAR label to be placed on the front/side of the machine, in product literature, and on the manufacturer’s Web site.

- EPA’s goal with placement of the label is to build consumer awareness in the marketplace across all products.
- Suggestion to place the ENERGY STAR label inside the machine so that the purchasers see the label.

- Suggestion that the ENERGY STAR label be placed alongside of the UL label on the data plate.
- Suggestion to place the ENERGY STAR label on the side of the machine, next to the manufacturer nameplate.
- Suggestion that the ENERGY STAR label be permanently affixed to the machine.
- Suggestion that the specification text read that the label must be “visible after the unit is installed.”
- There will be resistance to putting the ENERGY STAR label on the front of the machine because of its high real estate value that is reserved for advertising purposes.
- The host sites would want the ENERGY STAR label on the front of the machine.

### **Installed Base**

Is there a mechanism that EPA and industry can agree on to soften the impact of the labeling of new machines?

- Right now bulb systems are being replaced not because of energy savings, but because the change reduces the number of maintenance calls.
- Product lifetime varies with each machine. The specification cannot have one set number that applies to the entire installed base; different requirements should be set for different model types. It’s more than just a component change-out that can become very expensive.
- Suggestion to place the ENERGY STAR label on the inside of the machine for the first few years while industry works through the installed base issue; then place it on the outside at a later date.
- Suggestion that EPA set the same specification level for installed base as for new machines and let the market play out; incentives may be needed by utilities to encourage bottlers to make these changes to existing machines.
- Does EPA need to lower the specification to capture the installed base/retrofitted machines? There is a possibility that EPA could set a tiered specification, with the second tier starting a certain time period later.

### **Next Steps**

- The group agreed that there needs to be at least one more lengthy discussion specifically on the installed base and a possible retrofit specification.
- All written comments on the Draft specification should be submitted to Rachel Schmeltz or Rebecca Miller; contact information is provided below.

### **ENERGY STAR Contact Information:**

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